

Application No.: 10/760,126
Serial No.: January 16, 2004

REMARKS

The January 30, 2008 Final Office Action was based upon pending Claims 9-11, 13, 14, 16-23 and 25-31. The Examiner rejected Claims 9-11, 13, 14, 16-23 and 25-31. By this amendment, Applicant has amended Claims 9, 16, 20 and 26. Reconsideration of the application, as amended, is respectfully requested.

I. Claim Rejections

The Examiner rejected Claims 9-11, 13, 14, 16, 18, 19, 21 and 25-28 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,246,214 issued to Oglesbee ("the Oglesbee patent") in view of U.S. Patent No. 5,621,299 issued to Krall ("the Krall patent") and U.S. Patent No. 5,739,596 issued to Takizawa ("the Takizawa patent").

In addition, the Examiner rejected Claim 17 under 35 U.S.C. § 103(a) as being unpatentable over the Oglesbee patent in view of the Krall patent and U.S. Patent No. 6,170,062 issued to Henrie ("the Henrie patent").

The Examiner also rejected Claims 20, 22, 23, 30 and 31 under 35 U.S.C. § 103(a) as being unpatentable over the Oglesbee patent in view of the Krall patent and U.S. Publication No. 2002/0021164 to Fugate, et al. ("the Fugate publication").

The Examiner further rejected Claim 29 under 35 U.S.C. § 103(a) as being unpatentable over the Oglesbee patent in view of the Krall patent, the Takizawa patent, U.S. Patent No. 6,418,075 issued to Shimano ("the Shimano patent") and U.S. Patent No. 5,729,120 issued to Stich. ("the Stich patent").

II. Supplemental Information Disclosure Statement

Submitted concurrently herewith is a Supplemental Information Disclosure Statement citing a reference from a related co-pending application. While the Applicant does not believe that this reference will affect the patentability of the pending claims, Applicant respectfully requests the Examiner to consider the pending claims in connection with this reference in order to make it of record.

III. Rejection of Claims 9-11, 13, 14, 16-23 and 25-31 under 35 U.S.C. § 103(a)

The Examiner rejected Claims 9-11, 13, 14, 16, 18, 19, 21 and 25-28 under 35 U.S.C. § 103(a) as being unpatentable over the Oglesbee patent in view of the Krall patent and the Takizawa patent. In addition, the Examiner rejected Claim 17 under 35 U.S.C. § 103(a) as being unpatentable over the Oglesbee patent in view of the Krall patent and the Henrie patent. The Examiner also rejected Claims 20, 22, 23, 30 and 31 under 35 U.S.C. § 103(a) as being unpatentable over the Oglesbee patent in view of the Krall patent and the Fugate publication. Finally, the Examiner rejected Claim 29 under 35 U.S.C. § 103(a) as being unpatentable over the Oglesbee patent in view of the Krall patent, the Takizawa patent, the Shimano patent and the Stich patent.

A. Independent Claim 9

Focusing in particular on Claim 9 and the embodiments shown in Figures 2 and 4, a method for controlling battery power comprises coupling a first input terminal for receiving a first external power source (e.g., an AC adapter) 228 to a system power terminal (V-LOAD) via a first isolation diode 200. A second isolation diode 202 is used to couple a second input terminal for receiving a second external power source (e.g., a USB interface) 230 to the system power terminal. A first bypass transistor 204 and a second bypass transistor 206 are coupled across the respective isolation diodes 200, 202. The first bypass transistor 204 is turned on (e.g., through AC-ENABLE) when the first external power source is selected to provide power to the system power terminal. Similarly, the second bypass transistor 206 is turned on (e.g., through USB-ENABLE) when the second external power source is selected to provide power to the system power terminal. The second bypass transistor 206 is forced off to effectively isolate the second external power source from the system power terminal when the first external power source is detected at the first input terminal (e.g., through an override diode 218).

An internal battery is coupled to the system power terminal via a series-connected regulating transistor 400 as shown in Figure 4. The regulating transistor comprises a first terminal connected to the system power terminal, a second terminal connected to the internal battery, a control terminal, and a configurable body terminal connected to the system power terminal when the system power terminal has a greater voltage than the internal battery and connected to the internal battery when the internal battery has a greater voltage than the system

power terminal. The internal battery is charged by linearly regulating the regulating transistor with an adjustable voltage at the control terminal of the regulating transistor to conduct a charging current in a first direction from the system power terminal to a positive terminal of the internal battery (V-BATTERY) during a charging mode. The level of current provided to the internal battery is controlled by the level of the adjustable voltage to prevent a supply current (e.g., indicated by I-SENSE) from exceeding a predefined threshold.

None of the cited references discloses coupling an internal battery to a system power terminal via a series-connected regulating transistor with a configurable body terminal that connects to the system power terminal when the system power terminal has a greater voltage than the internal battery and connects to the internal battery when the internal battery has a greater voltage than the system power terminal. Accordingly, Applicant respectfully submits that Claim 9 is patentably distinguished over the Oglesbee patent, the Krall patent and the Takizawa patent, and Applicant respectfully requests allowance of Claim 9.

B. Dependent Claims 10, 11, 13, 14 and 25-28

Claims 10, 11, 13, 14 and 25-28, which depend from Claim 9, are believed to be patentable for the same reasons articulated above with respect to Claim 9, and because of the additional features recited therein.

C. Independent Claim 16

Claim 16 is directed to a method for controlling power to a battery. The method comprises coupling a first isolation diode between a first input terminal for receiving an external primary power source and a system power terminal. The first isolation diode has an anode coupled to the first input terminal and a cathode coupled to the system power terminal. A second isolation diode is coupled between a second input terminal for receiving an external secondary power source and the system power terminal. The second isolation diode has an anode coupled to the second input terminal and a cathode coupled to the system power terminal. A first bypass transistor is coupled across the first isolation diode and a second bypass transistor is coupled across the second isolation diode.

An internal battery is coupled to the system power terminal through a regulating transistor comprising a first terminal connected to the system power terminal, a second terminal connected to the internal battery, a configurable body contact, and a control terminal. The method senses

respective voltages of the system power terminal and the internal battery to control a connection of the configurable body contact. The configurable body contact is connected to the first terminal when the system power terminal has a greater voltage than the internal battery and connected to the second terminal when the internal battery has a greater voltage than the system power terminal. The control terminal of the regulating transistor is driven by a driving signal having linearly adjustable voltage levels to linearly regulate the level of current conducted by the regulating transistor to charge the internal battery. The level of current provided to the internal battery is determined by the voltage level of the driving signal.

None of the cited references discloses, teaches or suggests coupling an internal battery to a system power terminal through a regulating transistor with a first terminal connected to the system power terminal, a second terminal connected to the internal battery and a configurable body contact that can be connected to the first terminal or the second terminal depending on voltages at the system power terminal and the internal battery. Thus, Applicant asserts that Claim 16 is not obvious in view of the Oglesbee patent, the Krall patent and the Takizawa patent. Applicant respectfully submits that Claim 16 is patentably distinguished over the cited references and Applicant respectfully requests allowance of Claim 16.

D. Dependent Claims 17-23 and 29-31

Claims 17-23 and 29-31, which depend from Claim 16, are believed to be patentable for the same reasons articulated above with respect to Claim 16, and because of the additional features recited therein.

IV. No Disclaimers or Disavowals

Although the present communication may include alterations to the application or claims, or characterizations of claim scope or referenced art, the Applicant is not conceding in this application that previously pending claims are not patentable over the cited references. Rather, any alterations or characterizations are being made to facilitate expeditious prosecution of this application. The Applicant reserves the right to pursue at a later date any previously pending or other broader or narrower claims that capture any subject matter supported by the present disclosure, including subject matter found to be specifically disclaimed herein or by any prior prosecution. Accordingly, reviewers of this or any parent, child or related prosecution history

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shall not reasonably infer that the Applicant has made any disclaimers or disavowals of any subject matter supported by the present application.

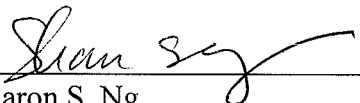
V. Conclusion

In view of the foregoing, the present application is believed to be in condition for allowance, and such allowance is respectfully requested. If further issues remain to be resolved, the Examiner is cordially invited to contact the undersigned such that any remaining issues may be promptly resolved. Also, please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

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